

Management Of Shvitra Through Chitrak Rasayan And Bakuchyadi Lepa

Kiran Kumari¹, Vijay Shankar Pandey²

¹ MD Scholar, Department of Samhita and Siddhanta, Government Ayurveda College, Patna.

² HOD & Professor, Department of Samhita and Siddhanta, Government Ayurveda College, Patna, kiranarayofhope26@gmail.com

Abstract

There are some diseases which does not take away the life but ruin the life. Shvitra (vitiligo) is one of them. Shvitra has become a common problem worldwide. It develops when pigment cells does not function properly which result into the development of white patches over the body. Although it does not give any trouble to the body but create a very hateful condition in the society. In Ayurveda the diseases is considered as *krucchrasadhya* (difficult to cure).

Aim- To cure the disease through the chitrak rasayan and Bakuchyadi lepa.

Method- chitrak rasayan consists of chitraka moola churna along with gomutra. This dug was chosen because the main reason for the diseases is Agnimandya, chitrak the best deepana drugs acts on the agnimandya and Ama. It also act as a rasayan as vitiligo can be a auto immune disorder. Gomutra is also agni Deepak and has kilasa hara action. Bakuchyadi lepa consist of Bakuchi and Moolak beeja churna applied along with the Gomutra. Ushna guna in this lepa stimulates the Bharajaka pitta, the type of pitta which is responsible for the complexion of the skin. This lepa help in promotion of growth and proliferation of melanocytes. Bakuchi absorb long wave ultraviolet radiations after exposure to sun light and become photoactive which stimulates the melanocytes.

Result- Here the ayurvedic medicines like chitrak moolachurna along with Gomutra and external application like bakuchyadi lepa has been proved to be effective.

Conclusion- Shvitra though difficult to cure can be managed successfully with the ancient system of medicine. These rasayan aushadhies help in the management of the diseases by improving the immune system. Early intervention should be adopted for better results.

Keywords: Shvitra, Chitrak rasayan, Bakuchyadi lepa, Gomutra.

INTRODUCTION

Vitiligo is a common pigmentary disorder of great socio-medical importance. It is defined as circumscribed, acquired, idiopathic, progressive, hypo melanosis of skin and hair¹. It is a condition in which skin color turns white due to the loss of melanocyte cells that produce melanin pigment which is responsible for the color of the skin. It is basically a hypo pigmentation of the skin.

This disease affects males and females equally². The usual age of onset is between 10 and 30 years old, but the condition can start at any age³. Although the diseases don't harm the internal organs but produce lots of psychological distress to the patients and bring them to dermatologists.⁴

It is more noticeable in darker-skinned people because of the contrast, although when they tan, even lighter-skinned people are affected.

This doesn't affect though it is a harmless affliction due to the social stigma and cosmetics disfigurement, the affected person gets mentally depressed.

It is the challenging problem for all systems of medicine and 0.1-2% of the total world population gets affected by it⁵. Even in modern science, the cause of the disease is not clearly known. According to the modern line of treatment PUVA⁶ (Psoralen + Ultra violet A) remains the therapy of choice along with corticosteroid therapy, vitamin B12, folic acid, pseudo catalase, antioxidant, MSH analogs, calcium, etc. While surgical therapy includes camouflage tattooing, melanocytes transplant, excision, melanocytes culture, blister-induced epidermal grafts, laser therapy, etc.⁷ PUVA has several adverse effects like pruritis, xerosis, burning, blistering, erythema, hyper pigmentation, skin aging, skin cancer, etc. All these treatments are costly; thus they are a burden to society.

In the present era due to modernization, the prevalence of skin diseases has become very common due to faulty dietary habits and lifestyles, excessive use of chemicals, unhygienic practices, and overuse of

antibiotics and steroids. Ayurveda plays an important role in this aspect as it is a life science whose purpose is to prevent disease and cure the diseases well described in Ayurveda⁸ in Cha. Su 30/26.

Shwitra is a cosmetic disfigurement so it affects human life psychology & has negative impact on quality of life. Acharya Charaka has said regarding the relationship between the *Mann* and *twacha*. *Twacha* is considered as *chetah samvayi* that is skin has the eternal relationship between the *twacha* and *Mann*.⁹ Therefore more than physical deformity it produces mental anxiety, depression, and other problems which affect the quality of life. Patients with skin diseases always experience physical, emotional, and socio-economic embarrassment in society which further leads to an aggravation of the symptoms of the existing diseases. It is a common cause of loss of work due to social stigma. Since *shwitra* is a progressive disease, its treatment should be started as early as possible. In Ayurveda all skin disease comes under the umbrella of *Kushtha roga* and *shwitra* is one of them. In the classics, *Kushtha* is included under the *Maha Gadas*¹⁰. Skin is the organ that covers the whole body. *Bharajaka pitta* is a type of *pitta* which is responsible for *chaya* and *Prabha*. Any impairment in the *Bharajak pitta* can cause skin diseases like *shwitra*. Also like *kushtha* it is caused due to *agnimandya* which leads to the production of *Ama*. This *ama* travels to this *bahya margas* and cause this *shwitra*. Vitiligo is a common autoimmune pigmentary disorder of great socio-medical importance. Due to side effects and limitations of the contemporary science, some harmless and potent medicines are expected from Ayurveda.

Treatment in modern science for dermatology has greatly advanced but there is no specific cure for *shwitra* (vitiligo). Treatment like steroids and PUVA are used in modern science which produce serious side effects in body and are relatively expensive. So, people are looking towards Ayurveda so that they can be treated with least side effects and get permanent cure of their illness. So, it becomes a burning topic in present era where there is a great need of research.

Ayurveda has such potent formulations for the treatment of such auto immune diseases with chronic in nature. Here formulations namely *Chitrak Rasayan*¹¹ from A.H U 39/65 and *Bakuchyadi lepa*¹² from Cha.Chi 7/169 which are indicated for *shwitra* have been taken for study.

Aims & Objectives

- To assess the combined effect of *Chitrak rasayan* & *Bakuchyadi lepa* on *shwitra*.

Keeping in view the above concepts, research work entitled Fundamental studies on *shwitra* (Vitiligo) & effect of *Chitrak rasayan* & *Bakuchyadi lepa* has been carried out at the Department of Ayurveda Samhita and Siddhanta, Government Ayurveda College, Patna.

Materials And Methods

The material utilized for this study was of two types

- 1) **Literary study:** Literary study has compiled from Ayurvedic classics as well as modern literature.
- 2) **Clinical Study:** Material comprised of 30 patients of *Shwitra*, various investigatory techniques, photographs, and clinical records etc.

Frame Work of the Study

The present research work entitled Fundamental effect of *shwitra* and effect of *Chitraka Rasayan* and *Bakuchyadi Lepa* is done.

Clinical Study

Patients having sign and symptoms of *Shwitra* (Vitiligo) were screened and selected for present study. Patients fulfilling the criteria & attending OPD No.10 & cases referred by other departments were selected randomly irrespective of race, cast, sex, religion etc.

The study was carried out after obtaining permission from institutional ethics committee. Inform consent (IC) of patients was taken prior to clinical study. After ethical clearance of the synopsis, study was registered in CTRI with no. CTRI/2021/11/038011. In this study total 30 patients of *Shwitra* were registered in a single group. Patients were taken randomly under the trial. The treatment was continued for 8 weeks and patients were advised to follow a specific do's and don'ts. After completion of treatment the data were collected and efficacy or failure of the medication was decided depending on results obtained. The results which were obtained were tabulated and present in this work after appropriate analysis.

Drug Review

*Chitrak Rasayan*¹⁰

It's an internal medication. *Chitrak rasayan* contain *Chitrak Moola Churna* given along with the *Gomutra*.

Dose -1gm B.D

Anupana - *Gomutra*

यथास्वं चित्रकः पुष्पैर्ज्ञेयः पीतसितासितैः।

यथोत्तरं स गुणवान् विधिना च रसायनम्॥६२॥

छायाशुष्कं ततो मूलं मासं चूर्णीकृतं लिहन्।

सर्पिषा मधुसर्पिभ्यां पिबन् वा पयसा यतिः॥६३॥

अम्भसा वा हितान्नाशी शतं जीवति नीरुजः।

मेधावी बलवान् कान्तो वपुष्मान् दीप्तपावकः॥६४॥

तैलेन लीढो मासेन वातान् हन्ति सुदुस्तरान्।

मूत्रेण श्वित्रकुष्ठानि पीतस्तक्रेण पायुजान्॥६५॥ (A.H.Ut 39/62-65)

*Bakuchyadi Lepa*¹¹

For External Application *Bakuchyadi lepa* was used.

Bakuchi Beeja Churna, *Moolak Beeja Churna* along with *Gomutra*

Dose- Quantity sufficient, two times along with *Gomutra*

Description in Literature

नीलोत्पलं सकुष्ठं ससैन्धवं हस्तिमूत्रपिष्टं वा।

मूलकबीजावल्गुजलेपः पिष्टो गवां मूत्रे॥ Cha.chi.7/169

Aims and Objectives

- To study the fundamental aspect of *Shvitra*, described in Ayurvedic & Modern literature
- To assess the combined effect of *Chitrak Rasayan* and *Bakuchyadi Lepa* on the *Shvitra*.

Material and Method

It comprises of the proforma, prepared on the basis of classical text as well as modern literature. All etiological factors and symptoms of *Shvitra*, described in *Ayurveda* and modern dermatology were incorporated in the exclusive proforma.

Patient visiting OPD Room no.10 (research OPD) GACH-PATNA were selected for the present study on the basis of the sign and symptoms given in ayurvedic and modern literature and detailed history was obtained and recorded in exclusive proforma.

Diet & Restriction

Patients were advised dietary restrictions during the treatment.

Grouping of Patients

Total 30 patients were registered in the OPD. Treatment was done in single group.

Laboratory Investigations

Routine hematological like CBC, ESR, urine- routine and microscopic, were also carried out.

Oral Administration

Chitrak Rasayan compound were given in the dose of 2gm/day in two split doses after meal with *Anupana* of *Gomutra*.

External Applications

Bakuchyadi Lepa- Quantity sufficient used for local applications.

Patients were advised to apply the *lepa* twice in a day, the lesions are then to be exposed to direct sunlight once a day. Regular use is strongly emphasized. Only depigmented areas need sunlight exposure. The rest of the body can be covered. Patients were advised Use sunglasses to protect their eyes. Patients were advised to wash their hand after use of the medicine as it contains some irritant drugs like *Bakuchi*.

➤ Inclusion Criteria

- Patients having signs and symptoms of *Shvitra* (vitiligo).
- Patients having maximum *Sadhya Lakshana* of *Shvitra*.

- Patients in between 16 to 60 years of age.
- Patients with chronicity of less than 10 years.
- Patient who gives consent to get into the trial.

➤ **Exclusion Criteria**

- Patients having Chronicity more than 10 years.
- Patient with age more than 60 years of age.
- Diseases have been spread to more than 75% of the body.
- Another hypo Pigmentary disease.
- Pregnant women
- 7-8 *Asadhya* symptoms

Plan of Study

The study was Randomized Open Trial Study cleared by the Institutional Ethics Committee. The trial was registered in Clinical Trial Registry of India CTRI No/2021/11/038011. Informed Consent was taken from all the patients before including them into the trial. Single group patients were taken into the study.

Criteria for Assessment

Standard scoring pattern was adopted for scrutinizing the symptomatology. The score was given on the basis of Size, Color and Number of patches, Percentage of body area involvement, chronicity of patches and *Asadhya Lakshana*. For the assessment of the involvement of body surface area, Rule of Nine described used to calculate the percentage of burn was used with certain modifications.

1. Percentage of Area

PERCENTAGE OF AREA	SCORE
1% -25%	1
26% to 50%	2
51% to 75%	3
76% to 100%	4

2. Size

SIZE	SCORE
0-5cm	1
5-10cm	2
10-15cm	3
>15cm	4

3. Colour of Patches and

1 to 3	1
4 to 6	2
7 to 10	3
>10	4

4. No. of Patches

COLOR OF PATCHES	SCORE
Normal Skin Colour	0
Red Colour	1
Reddish White Colour	2
Whitish Red Colour	3
White Colour	4

5. Chronicity of Patches

Chronicity of patches	No. of Patches
1 to 3 yrs.	1
4 to 6 yrs.	2

7-10 yrs.	3
More than 10 yrs.	4

6. On the Basis of *Asadhya Lakshana*

NO OF <i>ASADHYA LAKSHANA</i>	SCORE
Absent	0
1-2	1
3-4	2
5-6	3
7-8	4

- 1) Color of Trichrome
- 2) Discrete or Coalescent
- 3) Multiple Patches
- 4) Chronic (More Than One Year)
- 5) Over Hand and Feet
- 6) Due to Burn
- 7) Over Genital Part
- 8) Over Lip Region.

Total score was obtained from calculation of table (1) to (6).

Category	Total score
Mild	4-10
Moderate	11-17
Severe	18-24

Maximum score was 24. Then they were divided into mild, moderate and severe category as below.

On the basis of above scoring, we scrutinized the effect of therapy in three categories. One thing should be committed to memory that scores for chronicity was unchanged before and after treatment.

PERCENTAGE OF RELIEF	EFFECT OF THERAPY
Less than 10%	No change
10-24%	Mild improved
25-49%	Improved
50-74%	Moderate
75-99%	Markedly improvement
100%	Cured

Total 30 patients diagnosed as *Shvitra* were registered. Out of 30 patients, 04 patients discontinued the treatment against the medical advice.

Results: After diagnosis the patients were categorized in one group:

Status	No of patients
Registered	30
Treated	26
LAMA	04
Total	30

Total 30 patients were studied for *Shvitra*. Out of them 26 patients were treated and 04 patients discontinued the treatment against medical advice.

Clinical Results

1. Effect on Area of Patches

Mean score	D	Re	S.D	S.E	T	P	
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B.T	A.T	0.08	6.06%	0.27%	0.05	1.44	0.1622	P>0.05
1.269%	1.2%							

It shows statistical analysis of effect of internal as well as external therapy on involvement of area. It was observed that mean score of percent area involved BT was 1.269% and AT it was 1.2%. There was no significant difference. The relief was found 6.06% and statistically insignificant.

2. Effect on Size of Patches

Mean score		Mean score Diff.	Relief	Standard deviation	Std. error	t	p
B.T	A.T	0.808	32.31%	0.634	0.124	6.499	P< 0.01
2.5	1.69						

It shows statistical analysis of effect of internal as well as external therapy on involvement of area. It was observed that mean score of percent area involved BT was 2.5 and AT it was 1.69. Difference between the mean score is 0.808. The relief was found 32.31% and statistically significant.

3. Effect on Color of Patches

Mean score		Diff.	Relief	Standard deviation	Standard error	t	p
B.T	A.T	2.12	59.1%	0.77	0.15	14.1	P< 0.001
3.577	1.38						

In this group the initial mean score of Color of patch was 3.577 which got reduced up to 1.38. The difference is 2.12. This relief was by 59.10% which is statistically significant. (p<0.001)

4. No. of Patches

Mean score		Difference mean score	Relief%	Standard Deviation	Standard Error	t	P
B.T	A.T	0.077	4.255%	0.272	0.053	1.443	P> 0.0001
1.808	1.731						

In this group the initial mean score of no. of patch was 1.808 which got reduced up to 1.731. The difference is 0.077. This relief was by 4.255% which is statistically insignificant. (p>0.001)

5. Effect in Hematological Parameter

Mean score		Diff.	Relief%	Standard Deviation	Standard Error	t value	P
B.T	A.T	0.2	1.616%	0.851352	0.166964	1.197864	0.242107 p>.01
12.36923	12.89231						

In this group the initial mean score of no. of patch was 12.36923 which got reduced up to 12.89231. The difference is 0.2. This relief was 1.616% which is statistically insignificant. (p>.01)

On ESR

Mean score		d	Re	S.D	S.E	T	P
B.T	A.T	10.538	23.24003%	7.267631	1.4253	10.53846	0.242107
45.3465	34.73077						

							p<.01
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In this group the initial mean score of no. of patch was 45.34 which got reduced up to 34.73. The difference is 10.53. This relief was 23.24% which is statistically significant at (p<.01)

6. Overall Effect of Therapy

Assessment	No. of patient	Percentage
100% (Complete Relief)	01	3.8%
75%-99% (Markedly Improved)	01	3.8%
Moderate Improvement 50-74%	03	11.53%
Improved 25%-49%	17	53.84%
Mild Improvement 10%-24%	03	11.53%
0-10%(Unchanged)	01	3.84%
Total	26	

- **Probable Mode of Action of Drugs**
- Two formulations were selected for the patients. One was *Chitrak Rasayan* for the internal use and *Bakuchyadi Lepa* for the external use.
- ***Chitrak Rasayan*.**
- *Chitrak* was given to patient along with the *Gomutra*. The vitiation of *kapha* is the main *doshik* involvement found in the *Shwitra*.
- ***Chitrak* as the best *deepana* drugs**
- The main cause of the the diseases is *Ama utpatti*. As *Ama* coagulates in the body it inevitably clogs the channels of the body and distrupts the tissue functions. *Ama* can disturb the whole psychological process at cellular process.
- *Chitrak* is the *agraya deepana drugs*. The synonyms of *Chitrak* is itself the *Agni*, *Vanhi*, *Jaran* etc.
- **चित्रकोऽग्निसमः पाके शोफार्शः कृमि कुष्ठहा।**As.su.6/16
- *Chitrak* possesses *tikshna*, *laghu* and *Ruksha* properties and *Katu Rasa*, *Katu Vipaka* with *Ushna Virya*. This functional complex in *Chitrak* targets its action on *JatharAgni* mainly.
- The *Deepaniya* properties of *Chitrak* ignites the *Agni*. Moreover, Its *tikshna*, *Laghu* and *Ruksha* properties acts on *Pitta* and reduce the excessive *dravatva guna* of *Pitta*. Thus, it increases the *Prakrit Pitta* which in turn promotes the *Jatharagni* . Such a balanced *Jatharagni* , then, digests and destroys the *Ama* complex ensuring smooth digestion process. *Chitrak* improves the digestion thereby regulates the nutritional supply, maintain color and texture of skin.
- ***Chitrak* as *Rasayana***
- *Chitrak* provides strength to the immune system. If a drug is able to Maintain the *Agni* then definitely it acts as a *Rasayana*. One of the reason of *Shwitra* is the compromised immune system. It reduces the free radicals in the body that cause damaged to the body.
- **Antibacterial properties of the *Chitrak***
- Studies showed that the *Chitrak* has different activities like antiviral activities, antibacterial, anti fungal properties which is useful in curing the skin diseases. *Chitrak* contain *plumbagin* therefore protects skin from microbial susceptibility.
- ***Gomutra***

- Gomutra is having *Katu-Tiktarasa*, *Tikshna*, *Ushna*, *Virya*, *Katu Vipaka*, *Kshar* properties. It is *Laghu* and does the *Agni Deepana*. It is *pittala* that means it increase the *prakrit Pitta* which is responsible for the colour formation. It is used in *Virechana Karma* which balances the *Pitta Doshas* in the body.
- Acharya Charaka has said Gomutra is slightly *Madhura* in *rasa*, pacify *Doshas*, cures the *Krimi* and *Kushtha*. If it is taken internally in the right quantity, it reduces the *Kandu* and cures the *Udara Doshas*.
- Various studies have also showed that it has antimicrobial properties
- **Bakuchyadi Lepa**
- This *lepa* contain *Bakuchi Churna*, *Mooli Beeja Churna* applied along with the *Gomutra*.
- It has *Katu*, *Tikta Rasa*, *Ruksha Guna* and *Katu* in *Vipaka*, *Ushna* in *Virya*.
- **अवलुज भेदिनावग्निदीपनो।** A.H.Su.6/82
- *Bakuchi* have strong antioxidant properties. *Bakuchi* increases the blood circulations locally, thus provide nutrition to the cell and help in the formation of *Bharajak Pitta*.
- *Bakuchi* is a renowned herb mentioned in the classical text for pigmentation. It stimulates the production of melanin. It contains psoralen that absorbs long UV radiation after exposure to sunlight and become photoactive and promotes the growth of melanocytes. It does not only aid the proliferations of melanocytes but also prevents the autoimmune activity of the diseases.
- *Moolak Beeja Churna* have also the anti-inflammatory, antibacterial, and antioxidant properties. *Mooli Beeja* has some volatile oil that has the *Kushthghna* properties. It has *Katu Rasa*, *Teekshna*, *Ushna Veerya*, *Katu Vipaka*. It has *Vataghna*-*Kaphaghna* *Kushthghna* and *Krimighna* properties. *Moolak Beeja Churna* have also the anti-inflammatory, antibacterial, and antioxidant properties.
- The entire content of *Bakuchyadi Lepa* are *Ushna pradhana*. *Ushna Veerya* increases the *Bharajak Pitta* and that is responsible for the normal colour of skin. They also does the *sthanik amapachan* and eventually does the *srotosodhana*. This drugs also possess anti-inflammatory and immunomodulatory properties. Application of *lepa* followed by exposure to sunlight which helps in stimulating melanocytes formations, a photoreactive substance, which is used in the vitiligo.
- *Bakuchi* is drug of choice for many physicians as it contains highest amount of furocoumarin, a psoralen compound. Sometimes, during external application, *Bakuchi* causes severe allergic reaction, which lead to worst blister formation and increased chance of secondary infection.





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